Synthesis evaluation of the Local Heat and Energy Efficiency Strategy (LHEES) pilot programme

Final Report
LHEES Pilot Programme Evaluation: Key Findings

This report presents findings from a synthesis evaluation of Scotland’s Local Heat and Energy Efficiency Strategy (LHEES) pilot programme, which involved pilot projects delivered by all 32 Scottish local authorities. LHEES will set out long-term plans for energy efficiency and heat decarbonisation for all buildings in each local authority area, and will be crucial in delivery of national emissions reduction and fuel poverty targets.

The pilot programme involved three distinct phases, each testing the LHEES development process and considering data sourcing and resource requirements. There has been some variation in the profile of LHEES across the 3 phases, with phase 2 focused on specific building sectors and phase 3 on areas of high heat demand or off-gas grid. The synthesis evaluation sought to bring together findings from across all three phases, and to identify learning points for the future rollout of LHEES.

How have pilots benefitted local authorities?

The pilot programme has generated a range of benefits and positive outcomes for participating local authorities.

Data & understanding
Local authorities improved their data skills and understanding of decarbonisation through the pilots

Strategic priority
Undertaking pilots has raised the strategic priority of decarbonisation within local authorities

Support & collaboration
External support & stakeholder collaboration have been essential for LHEES, and in realising benefits

Funding & guidance
Scottish Government funding and guidance have also been crucial in realising benefits for authorities

What challenges have affected LHEES development?

LHEES pilots have been impacted by a number of challenges and issues, arising across all aspects of LHEES development.

Buy-in, skills & resourcing
Securing the required skills and resources has been a key challenge, in part dependent on buy-in from senior officers and elected officials

Data sourcing & analysis
Many pilots found the wide range of data sources and analysis skills required to produce LHEES a significant challenge

Stakeholder engagement
Local authorities were concerned about the resources required for effective stakeholder engagement, and some were unclear about the role of stakeholders

Delivery planning
Data access challenges limited scope for options appraisal and delivery planning through pilot LHEES
What does this mean for LHEES rollout?

A key focus for the evaluation was to identify learning points to inform subsequent rollout of LHEES. The recommendations summarised below draw on the challenges impacting pilots, and the factors contributing to successful development of pilot LHEES.

Legislation & regulation
Making LHEES a statutory duty was seen as necessary to secure the support and resources required for effective delivery of LHEES. LHEES rollout is also likely to require implementation or strengthening of a range of policies and regulations.

**Recommendation:** Establishing LHEES on a statutory basis, and providing stronger regulation around heat decarbonisation to incentivise stakeholders.

Guidance & support
Local authorities’ experience indicated a need for additional guidance and support for LHEES rollout. This should be focused on data access and skills to ensure equal access to required evidence, stakeholder engagement skills and secure local buy-in.

**Recommendation:** Scottish Government to provide additional LHEES guidance and support, particularly around data and stakeholder engagement.

Resourcing
LHEES rollout will require a significant increase in resourcing to support the additional data collation, data analysis and stakeholder engagement required, and may require a dedicated role within each local authority.

**Recommendation:** Provide additional resourcing for local authorities for LHEES rollout – including implementation of LHEES Delivery Plans.

External support
Experience across the pilot programme indicates that external consultants will be key to supporting rollout of LHEES, as development and delivery of authority-wide LHEES increases the demands on local authorities.

**Recommendation:** Support local authorities to access and make best use of external consultants and other support.

Strategic positioning & buy-in
Ensuring sufficient strategic priority for LHEES and effective integration with local authority strategies and plans will be vital for LHEES rollout. There is a need for more work to ensure this is in place across all local authorities.

**Recommendation:** Ensure LHEES is given sufficient strategic priority, and is effectively integrated with wider local authority strategies and plans.

The context to LHEES has continued to develop since the pilot programme, including refinement of the LHEES methodology and work to improve the evidence base. The recently published Heat in Buildings Strategy sets out the role and structure of LHEES in more detail and will be crucial in shaping the approach to the rollout of LHEES.
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1. Introduction

This report presents findings from a synthesis evaluation of Scotland’s Local Heat and Energy Efficiency Strategy (LHEES) pilot programme. This chapter summarises the policy context and provides an overview of the pilot programme.

Policy context for LHEES

LHEES are expected to set out the long-term plan for decarbonising heat in buildings and improving their energy efficiency across an entire local authority area, to prioritise Scottish Government and UK Government delivery programmes, and both public and private investment. LHEES will be a crucial element in the delivery of national targets for energy efficiency improvements, tackling fuel poverty, and decarbonising the heat supply of Scotland’s buildings.

The concept of LHEES was introduced through two Scottish Government consultations in 2017, and Scottish Government and local authorities have been working together since then to further develop LHEES. The Heat in Buildings Strategy published in October 2021 makes clear that LHEES are fundamental to the Scottish Government’s approach to heat decarbonisation. The Strategy also sets out a detailed description of what LHEES are expected to include, and commits to publishing LHEES for all local authority areas by the end of 2023 and continuing to work with local authorities to establish LHEES on a statutory basis.

The pilot programme

The LHEES pilot programme has involved three phases of pilots, with all 32 Scottish local authorities involved in one of the phases. The figure below provides an overview of the pilot programme.

Overview of LHEES pilot programme timeline

<table>
<thead>
<tr>
<th>Phase 1 pilots (Sept 17-Mar 19)</th>
<th>Phase 2 pilots (May 18-Dec 19)</th>
<th>Phase 3 pilots (Nov 19-Mar 21)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 local authorities</td>
<td>11 local authorities</td>
<td>9 local authorities</td>
</tr>
<tr>
<td>Test &amp; develop LHEES process</td>
<td>Test &amp; develop LHEES process</td>
<td>Test &amp; develop LHEES process</td>
</tr>
<tr>
<td>Focus on specific building sectors</td>
<td>Focus on high heat demand, off-gas grid</td>
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Evaluations have been conducted for each of the three phases, the first published in 2019\(^1\), the second in 2020\(^2\), and the third in 2021\(^3\).

All three phases of the pilot programme sought to test and develop the LHEES development process, including consideration of data sources and gaps, and

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\(^1\) [LHEES phase 1 pilots social evaluation](#) and [LHEES phase 1 pilots technical evaluation](#)

\(^2\) [LHEES phase 2 pilots evaluation](#)

\(^3\) [LHEES phase 3 pilots evaluation](#)
identification of the resources and capabilities required. However, there was some variation in focus over the course of the pilot programme, with phase 2 including a focus on specific building sectors and phase 3 focusing on areas of high heat demand or off-gas grid. Local authorities also had scope to tailor their approach to LHEES in response to local circumstances and needs – as a result, there was considerable variation in the 32 LHEES produced through the pilot programme.

The context to LHEES also changed during the pilot programme and has continued to develop since completion of the programme – including for example refinement of the LHEES methodology and more detailed proposals set out in the Heat in Buildings Strategy. The final ‘Next Steps’ section of this report notes where these developments specifically address some of the issues raised through the evaluation.

Overview of LHEES produced through the pilot programme

<table>
<thead>
<tr>
<th>Sector focus</th>
<th>Phase 1 (12 LAs)</th>
<th>Phase 2 (11 LAs)</th>
<th>Phase 3 (9 LAs)</th>
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<tbody>
<tr>
<td><strong>Geographic focus</strong></td>
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<tr>
<td>All had a broad sectoral focus, although a small number focused on geographies with a specific building stock profile. Challenges accessing data limited the extent to which pilots were able to consider non-domestic buildings.</td>
<td>Specific sectoral focus – 5 on ‘able to pay’ domestic and non-domestic, 4 on domestic PRS, 4 on SMEs, 4 on public sector. Some also focused on specific building types within these sectors. Some moved to longer-term strategic focus in response to declaration of ‘climate emergency’.</td>
<td>General focus on areas with high heat demand (potential for heat networks), areas with high proportion of buildings off the gas grid. Challenges accessing data resulted in more focus on domestic buildings. Some narrowed scope in response to the COVID-19 pandemic.</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Nearly all focused on one or more discrete locations within local authority area. Some developed bespoke areas, others using pre-defined geographies such as regeneration areas, wards, and CPP areas.</td>
<td>6 focused on one or more discrete locations, 5 considered specific sector(s) across the LA area. Some moved to longer-term strategic focus in response to declaration of ‘climate emergency’.</td>
<td>8 focused on one or more discrete locations. 1 considered the whole LA area. Some narrowed scope in response to the COVID-19 pandemic.</td>
<td></td>
</tr>
<tr>
<td><strong>Resourcing</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Centrally procured consultancy consortium, funding for LA staff time.</td>
<td>Local authorities responsible for procuring external support, funding for LA staff time.</td>
<td>Local authorities procured external support with SG support (LHEES framework), funding for LA staff time.</td>
<td></td>
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</table>
Research aims and questions

The overall aim of the study was to bring together findings from each of the three phases of the pilot programme to provide an evaluation of the LHEES pilot programme as a whole, and to identify learning points for the future roll-out of LHEES. The evaluation has also drawn on outputs from each of the 32 pilots and a small number of interviews with local authority officers.

The research questions identified for the evaluation are set out below.

<table>
<thead>
<tr>
<th>Research Questions</th>
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<tr>
<td>1. What have been the key benefits and outcomes for authorities?</td>
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<td>2. What challenges have authorities faced in developing LHEES?</td>
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<td>3. What has been effective in overcoming these challenges?</td>
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<td>4. What challenges and gaps remain unresolved?</td>
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<td>5. What is needed to roll out LHEES across Scotland?</td>
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Report

The remainder of this report is structured as follows:

Chapter 2 considers the main benefits and positive outcomes secured for local authorities through the LHEES pilot programme.

Chapter 3 considers the challenges encountered by local authorities across the LHEES pilot programme.

Chapter 4 outlines key considerations for the future rollout of LHEES, considering challenges which remain unresolved and evidence on the factors that have contributed to successful development of LHEES.

Chapter 5 sets out next steps for development of LHEES.

The report includes anonymised verbatim quotations drawn from the three pilot programme evaluation reports - these have been lightly edited for brevity.
2. Benefits and outcomes of the pilots

**Skills development** and **improved understanding** of energy efficiency and decarbonisation was a key benefit of the pilots for local authorities.

Improved use of data enabled **identification of new energy efficiency and decarbonisation opportunities**, and trialling of new decarbonisation initiatives.

Internal stakeholder engagement helped to **increase strategic priority** of decarbonisation and integrate LHEES across other strategies and plans.

**External support** has been key to upskilling and knowledge development – although further support may be needed for implementation.

**Funding, guidance and support** from Scottish Government have also been critical to the successful delivery of LHEES pilots.

This chapter considers the benefits and positive outcomes secured for local authorities through the LHEES pilot programme.

**Skills development**

LHEES was identified by local authorities across all phases of the pilot programme as an opportunity for significant upskilling of officers. Upskilling was primarily focused on the data collation and analysis skills required to develop the evidence base, and building capabilities around exploring decarbonisation options. Pilots provided an opportunity to access and work with data in new ways – including datasets already in use by local authorities, and other datasets being used for the first time. The integration of multiple ‘layers’ of evidence has also been crucial in enabling local authorities to more accurately assess energy efficiency and decarbonisation options. Some noted that this depth of analysis had previously been seen as an ‘impossible challenge’, and a key barrier to progressing decarbonisation at scale, without the resourcing and external support provided through the pilot programme.

Some local authorities saw the extent of skills development through the pilot programme as an indication of how challenging a full LHEES would be for many local authorities.

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The LHEES pilot has shown that decarbonisation is not an impossible task - just really hard! We have changed the discourse from ‘why should we even try?’ to ‘why shouldn't we?’

Phase 3 local authority
Understanding of energy efficiency and decarbonisation

Improving understanding of local energy efficiency and decarbonisation needs, and opportunities for decarbonisation, was a key outcome for local authorities. Specific areas where local authorities had built their knowledge included energy performance of the local housing stock, to future heat demand and consideration of the potential effectiveness of energy efficiency measures and decarbonisation options (including heat networks).

Understanding of the local energy context has also helped to shape LHEES in terms of their focus on specific sectors and stakeholders, such as domestic/non-domestic buildings, SMEs, etc. This was particularly the case in phases 2 and 3 of the pilot programme.

Strengthening partnership working and stakeholder buy-in

The LHEES process has helped to encourage more partnership working with internal and external stakeholders, highlighted by local authorities as crucial for the success of LHEES. Local authorities were particularly positive about the role of LHEES in supporting cross-departmental working, including development of new channels of engagement and knowledge sharing across a range of departments. This contributed to a number of specific benefits:

- Better understanding of decarbonisation across local authority departments;
- Increased ‘buy-in’ and strategic priority of decarbonisation;
- Improved understanding of how services can contribute to LHEES objectives, and identifying opportunities to integrate LHEES with other local authority strategies and action planning;
- Evidencing delivery against wider local authority policy commitments; and
- Building on existing energy efficiency and decarbonisation activities, increasing momentum in delivery against targets.

LHEES pilots have also supported more effective engagement with external stakeholders, particularly with other local authorities, seen as especially valuable in sharing the diversity of experience in LHEES development.

Pilots have demonstrated the importance of securing buy-in from senior management and elected officials – this will be essential to support future LHEES development and delivery.
External expertise and support

External support from consultants has played a significant role in the development of LHEES, and realising the benefits noted above. Local authorities highlighted the value of integrating outputs produced by the consultant with officers’ understanding of the local context. This was seen as crucial in ensuring LHEES were specific to the local context, fostering a sense of local ownership, and facilitating skills development within local authorities.

Local authority experience of working with consultants also appears to have improved over the pilot programme. For example, phase 3 local authorities were much more positive in their feedback than those in earlier phases including in relation to how consultants were procured. This may reflect changes in approach to procurement over the course of the pilot, moving away from a centrally procured consortium.

Unlocking additional funding

A small number of phase 3 local authorities suggested that LHEES could facilitate access to additional funding sources to support decarbonisation. This specifically included access to Scottish Government funding, including the Low Carbon Infrastructure Transition Programme. It was noted that work to develop LHEES can strengthen applications for funding by providing a more effective evidence base for strategic analysis.
3. Challenges in developing LHEES

Local authority buy-in, lack of clarity on the LHEES process, and the skills and resourcing required have been key challenges for local authorities.

Data collation and analysis has been hindered by limited data skills and knowledge, availability of datasets, and issues in data access and sharing.

Stakeholder engagement has been a particular challenge, impacted by limited engagement skills/experience and resourcing, a lack of clarity around the role of engagement, and (in phase 3) COVID-19 restrictions.

This chapter considers the main challenges experienced by local authorities in developing LHEES. Feedback across the pilot programme made clear that issues and challenges have arisen across all aspects of LHEES development.

Setup and scoping

Local authorities faced challenges in making key decisions at the initial scoping stage for their LHEES. For example, some reported difficulties identifying a regional focus for the pilot that would be representative of the wider area, while others found data access a challenge dependent on their focus (non-domestic buildings, and SMEs in particular, were highlighted as a challenge). For some, these difficulties reflected a lack of clarity on the LHEES development process, with some reliant on their consultant’s understanding of the process. This appeared to be a particular issue at phase 1.

Securing buy-in

Some local authorities reported difficulty securing buy-in and support from senior management and elected officials, despite work to share knowledge and guidance from consultants to encourage interest and buy-in. Feedback suggests that buy-in could be dependent on whether senior officers and elected officials recognised how LHEES fits with other local authority strategies and plans, and on the ability of officers to effectively communicate LHEES objectives.

Skills and resourcing

Feedback has made clear that LHEES development requires a diverse range of skills and knowledge. For example, pilots required officers to use multiple data sources, often across multiple service areas. Data collation and mapping was a particularly complex process.

It’s a multitude of different skills - understanding energy, building survey EPC, understanding of how planning works, influencing policy and strategy, and taking a strategy through to implementation.

Phase 1 local authority
Local authorities indicated that production of LHEES also requires skills in project management, managing data sharing agreements, business engagement and wider stakeholder engagement. As a result, many LHEES pilots required input from multiple officers to secure the necessary expertise and skills. In this context, some highlighted the value of local authority officers contributing their local knowledge to the core analysis and development work for LHEES, but others lacked the necessary in-house skills and were more reliant on consultants to lead the LHEES development process.

Local authorities also found that LHEES development is a resource-intensive process, requiring significant time input from local authority officers even to produce a pilot LHEES focused only on a relatively small part of the local authority area. Data collation/analysis and stakeholder engagement were identified as particularly resource intensive elements. The resourcing required by LHEES was also reflected in the positive experience of local authorities with a dedicated LHEES officer. Those without a dedicated officer reported having struggled to support the LHEES development process.

Local authorities’ experience through the pilot programme suggested that development and management of LHEES will require a dedicated role within the local authority.

**Data collation and analysis**

The extent to which officers felt capable of delivering the range of data skills and knowledge required by LHEES varied considerably. Most local authorities referred to limited skills and capacity having impacted the development process, with GIS skills a particular challenge. There were also significant challenges around availability of the data and analysis tools required for LHEES. This included suggestions that investment would be required to upgrade software and to improve the evidence base to support rollout of LHEES.

Local authorities raised several issues around access to accurate datasets. These included concerns regarding whether the Scotland Heat Map provides sufficiently granular data to inform LHEES delivery planning. It should be noted that the Heat Map was designed to aid strategic planning, and is not expected to deliver 100% accurate building-level data. However, feedback reflected wider concerns from local authorities regarding limited access to building-level data. This was particularly the case for non-domestic buildings and the private rented sector; for example, several local authorities referred to a lack of robust Energy Performance Certificate (EPC) data for non-domestic buildings. Some also raised...
Concerns regarding the accuracy of available data, including perceived variation in the robustness of Home Analytics data across Scotland. Some local authorities undertook limited data collection exercises to address deficiencies in the available evidence base. These typically involved site visits to a small sample of properties to verify building data and assess potential energy efficiency or decarbonisation options.

Concerns around data accuracy were compounded by data sharing challenges. Data sharing was relatively straightforward if partnerships were already in place, or where data was held by the local authority and/or publicly available. However, where this was not the case, data sharing between stakeholders was a significant challenge with potential to delay LHEES development. Concerns around the quality of datasets and disclosure risks appear to have limited willingness to share data, including examples of data protection concerns leading to partners sharing only aggregate data. In this context, some saw data protection legislation and data sharing protocols as too onerous. Data access and sharing also appear to have influenced the content of LHEES in some cases; for example, some based decisions around the focus of their LHEES on access to relevant datasets.

Work is required to ensure equity in local authorities’ access to key datasets, to avoid differences in the range of issues that local authorities can address through their LHEES.

Target setting and delivery planning

Challenges in access to and use of data also impacted local authorities’ ability to complete the later stages of LHEES. Limited target setting was a particular issue for phase 1 pilots, many of which were insufficiently detailed to identify new opportunities for action or to support delivery planning. This improved through the pilot programme; by phase 3 the majority of pilots provided detailed suggestions for energy efficiency and decarbonisation improvements, including examples of LHEES drawing on learning from activities across the UK.

This progression over the three phases of the pilot programme is consistent with the reported improvement in understanding of the LHEES process, and capacity to undertake the required data collation and analysis. Local authorities also indicated that the strategic positioning of LHEES amongst other local authority plans can be significant for delivery planning. For example, where LHEES had a clear role as part of the local authority’s wider approach to energy and climate change, feedback was more positive about prospects for delivery of the LHEES.
Stakeholder engagement

Engagement with external stakeholders has been frustrated by a range of challenges. Insufficient skills and capabilities limited stakeholder engagement, with some local authorities struggling to resource the communication skills, in addition to skills in social surveys and workshop facilitation. Engagement with SMEs and other businesses was highlighted as particularly difficult, requiring an understanding of how businesses work which many LHEES teams did not have. Engagement with businesses was also limited in some cases by difficulties accessing contact data due to data protection concerns.

There also appeared to be some lack of clarity around which external stakeholders have a role to play in LHEES, and at what stage stakeholders should be involved. Resourcing was also a significant barrier to effective engagement; for example, some found that one-to-one engagement was necessary for external stakeholders, requiring significant time input from officers. Several local authorities also felt that they lacked the tools or leverage to incentivise stakeholders who may not otherwise share the commitment to energy efficiency and decarbonisation. This included housing developers, private landlords, non-domestic property managers and social housing providers.

Feedback suggests that the impact of these and other issues has varied over the pilot programme. For example, a lack of clarity around stakeholder engagement was an issue for phase 1 local authorities. In contrast, phase 2 local authorities saw a role for resident engagement but typically felt that this would be premature during the pilot phase. At stage 3, the COVID-19 pandemic significantly restricted scope for engagement – although it is unclear whether other factors may have limited stakeholder engagement in the absence of the pandemic.

Several local authorities suggested that challenges in securing stakeholder engagement – and identifying the most effective approaches - is a key finding for future rollout of LHEES.
Wider issues and challenges

The pilot programme identified a range of other issues and challenges which had an impact on the LHEES development process. These are summarised below.

- While external support was widely recognised as crucial for pilots, some raised concerns regarding whether consultants’ work was fully tailored to their local circumstances. These local authorities felt that greater recognition of the specific local circumstances would have added value to the consultant’s outputs. Some acknowledged that scope for local authority officers to work with consultants to tailor the approach had been limited by available resources and (in phase 3) the COVID-19 pandemic.

- The COVID-19 pandemic had a significant impact on multiple aspects of the LHEES process for phase 3 pilots, including preventing local authorities from conducting necessary housing stock checks, and diverted resources from LHEES development as other functions were prioritised.

I think the only issue has been their slight tendency to not really give enough cognisance to the real variations that there are in remote and rural areas.

Phase 1 local authority
4. Implications for rollout of LHEES

Making LHEES a **statutory duty and providing guidance** on LHEES development and implementation could benefit rollout.

There is a need for **additional LHEES guidance and support** from Scottish Government to ensure access to reliable data and improved data skills, and the engagement capacity and skills to ensure an effective role for stakeholders.

LHEES development is a **resource-intensive process**, and rollout will require significant resourcing to expand LHEES and to enable effective delivery.

**Securing buy-in across all local authorities** will be essential to support LHEES development and delivery.

This chapter outlines what are likely to be key considerations for the rollout of LHEES. These reflects challenges considered in the previous section and evidence on what has contributed to successful development of pilot LHEES. The context to LHEES has continued to evolve since the pilot programme, including for example establishing a standard LHEES methodology. Several of these developments directly address some of the issues considered below. Section 5 of this report considers these developments in more detail.

**Legislation and regulation**

**Recommendation**: Establish LHEES on a statutory basis, and provide stronger regulation around decarbonisation to incentivise stakeholders.

Making LHEES a statutory duty was a key recommendation from local authority officers, who saw this as necessary to secure the support and resources required for effective delivery of LHEES. Some expressed concern that without a statutory basis, LHEES are unlikely to be prioritised by political leaders and senior managers, nor external stakeholders.

**Without [LHEES] being statutory…we can make sure it’s out there and people are aware of it. But it’s only guidance and advice, and new developers can quite easily say, ‘No, we’re not doing that’**.

Phase 2 local authority

Stronger regulation around decarbonisation was the second recommendation for local authorities. It was suggested that LHEES rollout will require implementation or strengthening of a range of policies and regulations, particularly to ensure engagement from stakeholders such as businesses and private homeowners. This included calls for fuel taxation reform to promote decarbonisation while ensuring protection for those at risk of fuel poverty.
Scottish Government guidance and support

**Recommendation:** Produce additional LHEES guidance and support, particularly around data and stakeholder engagement

Local authorities across all phases of the pilot programme saw a need for additional guidance and support for LHEES rollout. The pilot programme indicates that this should be focused on data access and skills, stakeholder engagement and ensuring local buy-in.

In relation to data access, there were calls for further guidance to clarify the range of technologies to be considered by LHEES, to ensure equal access to the required evidence base, and to encourage appropriate data sharing. There also appears to be a need for clarity on the role of stakeholder engagement, and the range of external stakeholders relevant to LHEES development and delivery. Other areas highlighted as requiring further guidance were the selection and use of external consultants, integrating LHEES with other local authority strategies and plans, and how to approach local LHEES delivery planning.

“...For me, with LHEES there’s a lot of missing guidance. Standardisation, methods, it’s a bit of a head scratch, ‘What do we do here?’ There is nothing to say, ‘Here is the work-flow and events, here’s what you need to do.’ That’s been difficult.”

Phase 2 local authority

There was also a common view that further support would be required from Scottish Government to ensure effective rollout of LHEES. This included in relation to local authorities’ data skills (for example, facilitating the sharing of experience and practice between local authorities), and skills and capacity to deliver stakeholder engagement (including stakeholder mapping, and sharing of learning). There were also calls for support to encourage buy-in from political leaders and senior managers, including long-term policy clarity and effective communication of energy transition goals.

**Resourcing**

**Recommendation:** Provide additional resourcing for local authorities to achieve LHEES rollout – including delivery of LHEES plans

Resourcing has been a critical issue across multiple aspects of the LHEES development process, and it should be noted that development of full local authority-wide LHEES will require significantly more resources than were required for the more focused pilot LHEES. This will include larger scale data collation and analysis work, and a potentially significant increase in the stakeholder engagement required. In this context, the pilot programme indicates
that development and management of LHEES may require a dedicated role within each local authority. Subsequent delivery of LHEES measures and programmes is also likely to require very substantial capital investment.

Feedback suggests that local authorities will not be able to meet these resourcing requirements alone. There are opportunities for local authorities to secure funding from other sources, but there was also a perceived need for Scottish Government funding to enable rollout.

External support

**Recommendation:** Support local authorities to access and make best use of external consultants and other support

The experience of pilot local authorities indicates that external consultants will be key to supporting rollout of LHEES, as development and delivery of authority-wide LHEES will substantially increase the demands on local authorities. There was concern that, without this support, many local authorities would be unable to deliver the same quality of LHEES. The pilot programme also suggests that, in addition to procuring support, local authorities require the resources to working closely with consultants.

Strategic positioning and buy-in

**Recommendation:** Work to ensure LHEES is given sufficient strategic priority and is effectively integrated with local authority strategies and plans

Local authorities made clear that ensuring sufficient strategic priority is assigned to LHEES, and integration of LHEES into wider local authority strategies and plans, will be vital for future LHEES development and delivery. The pilot programme has enabled local authorities to build communication skills to encourage buy-in. However, there is a need for more work to ensure a shared understanding of LHEES across local authorities.

Some also saw a role for Scottish Government in highlighting the need for LHEES to form part of an integrated approach to achieving climate goals, and setting out how LHEES should be integrated across local authority strategies and plans.
5. Next steps

This chapter details activities carried out by the Scottish Government since the LHEES pilot programme that address some of the challenges raised through the evaluation.

The Local Heat and Energy Efficiency Strategy (LHEES) pilot programme has been a highly successful initiative, engaging all 32 Scottish local authorities in a unique programme to develop and test approaches for LHEES, and build capacity. This report is testament to the significant learning that has been gained by both local and national government in piloting LHEES at this scale.

Guidance and support

We have fed lessons learned through the pilots into the development of the LHEES Methodology, produced on behalf of the Scottish Government by Zero Waste Scotland in collaboration with local authorities and technical consultants. The Methodology was issued to local authorities in late 2021 and addresses many of the challenges raised in this evaluation. It provides a consistent approach through clear step-by-step guidance for each stage of LHEES.

The methodology is data-driven, and clearly sets out how to access and process relevant data to produce Local Heat and Energy Efficiency Strategies and Delivery Plans, as well as highlighting the relevant skills and roles needed to carry out the analysis. It sets out a clear approach to handling and using data relating to LHEES, which collates the datasets required to complete the methodology into a data library, categorising them as core, additional and supplementary datasets.

Stakeholder engagement and strategic positioning

The Methodology provides guidance on the role of stakeholder engagement, and how it should be integrated into the LHEES process. This guidance is designed to support local authorities to develop Strategies and Delivery Plans that reflect the input of key stakeholders and provide a strong basis for action for local communities, government, investors, developers and wider stakeholders, pinpointing areas for targeted intervention and early, low-regrets measures.

The Methodology also provides guidance to support the alignment of national policy landscape alongside the local priorities, policies and strategies relevant for LHEES and to support the strategic positioning of LHEES amongst other local authority plans.
Data sourcing and analysis

An LHEES National Assessment is being carried out, using the LHEES Methodology together with national datasets such as Home Analytics and the Scotland Heat Map to carry out a Scotland-wide assessment of the building stock and identify initial strategic heat decarbonisation zones. As well as informing national decarbonisation planning, the National Assessment will create a central resource that local authorities can draw on to further overcome many of the data access and data sharing challenges faced by local authorities in the pilots.

Legislation and resourcing

This evaluation reinforces the view that placing LHEES on a statutory footing will allow local authorities to prioritise it internally, creating the necessary buy-in, as well as providing the weight for engagement with external stakeholders. The Scottish Government is working in partnership with local authorities and COSLA to introduce legislation to establish LHEES on a statutory basis so that Strategies and Delivery Plans are in place for all local authority areas by the end of 2023.

The evaluation shows that the grant funding provided to local authorities through the pilot programme and beyond has been an essential resource, but that a scaling up is required if we are to deliver effective LHEES by the end of 2023. The Scottish Government remains committed to ensuring appropriate resourcing of LHEES, on a consistent basis.

Conclusion

LHEES has evolved from an initial policy concept to a sophisticated, collaborative, data-driven approach for local heat and energy efficiency planning. A significant amount of time, energy and thought has been put in by local authorities, the Scottish Government and the many other stakeholders involved. This has resulted in clear guidance for producing local Strategies and Delivery Plans that will sit at the heart of a place based, locally-led, tailored approach to the heat transition. LHEES will have a core role in ensuring that by 2045, Scotland’s homes and buildings are cleaner, greener, easy to heat, and are no longer contributing to climate change.
Glossary of terms

EPC	Energy Performance Certificate
GIS	Geographic information system
LCITP	Low Carbon Infrastructure Transition Programme
LHEES	Local Heat and Energy Efficiency Strategies
PRS	Private rented sector
SME	Small to medium-sized enterprise

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